NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
ASTROGRAM
Newsletter of NASA Ames Research Center, Moffett Field, California
July 2015 - A Quarterly Publication

New Horizon's Pluto images amazes and surprises everyone

After more than nine years and more than three billion miles, NASA's New Horizons spacecraft made its closest approach, its primary mission, to Pluto on July 14, 2015.

The spacecraft was launched Jan. 19, 2006, from Cape Canaveral Air Force Station in Florida, and it is the first spacecraft to explore the Pluto system with its five known moons and the Kuiper Belt. With this milestone, the United States becomes the first nation in the world to have landed on or flown by every major body in our solar system.

Ames has three scientists who play key roles on the New Horizons science team. Kim Ennico, as New Horizons deputy project scientist and co-investigator, manages the instrument readiness and calibration aspects of the mission. Her expertise includes instrument development, space qualification and calibration; optical/infrared astronomy; optical/infrared detectors, optics, cameras, spectrometers; and science communication (social media, public speaking, hands-on classroom activities.)

Pluto in this image from the Long Range Reconnaissance Imager (LORRI) aboard NASA's New Horizons spacecraft, taken July 13, 2015, when the spacecraft was 476,000 miles (768,000 kilometers) from the surface.This is the last and most detailed image sent to Earth before the spacecraft's closest approach to Pluto on July 14.The color image has been combined with lower-resolution color information from the Ralph instrument that was acquired earlier on July 13.This view is dominated by the large, bright feature informally named the "heart," which measures approximately 1,000 miles (1,600 kilometers) across.

NASA photo by NASA/APL/SwRI

As Geology and Geophysics Investigation (GGI) team lead and co-investigator, Jeff Moore is the imaging node leader for the New Horizons mission.

continued on page 6

Eugene Tu takes the helm as new Ames center director

Administrator Charles Bolden announced the selection of Ames' own Dr. Eugene L. Tu as the next NASA Ames Research Center director May 5, 2015.

Tu most recently was Ames' director of Exploration Technology. He began his career at Ames as a co-op student in 1984. Later, as a research scientist, he conducted computational fluid dynamics research on the steady and unsteady aerodynamics of complex aircraft configurations.

As director of Exploration Technology, he was in charge of four technology research and development divisions, including two of the agency's critical infrastructure assets: NASA's consolidated arc jet testing complex and NASA's primary supercomputing facility.

NASA photo by Dominic Hart

Eugene Tu (left) at his inaugural all hands as Ames Center Director, May 20, 2015, with Tom Edwards (right), Ames' new deputy center director. Tu spoke about his past at Ames as well as his future plans for the center.

"I am honored and humbled," he said after the announcement was made during the Ames Executive Council meeting. "I've spent all my career at Ames so there should be no doubt of my love for this center and the agency."

After progressing through various research and managerial positions in computational aerodynamics, information technology, and high performance computing and communications, Tu was selected into the Senior Executive Service Candidate Development Program (SESCDP) in 2002. He has served in the Office of Biological and Physical Research at NASA Headquarters, and was acting deputy director of Exploration Technology for a year prior to his selection as director of Exploration Technology.

continued on page 3

Sea level rise discussed at public meeting at Ames

The Ames community was invited to a public meeting to raise awareness about the effect of sea level rise on Santa Clara County residents and businesses, June 19 at Ames. The event, called "Meeting the Challenge of Sea Level Rise in Santa Clara County," is part of NASA's ongoing effort to enhance knowledge, education and stewardship of the Earth.

NASA Ames has partnered with the San Francisco Bay Conservation and Development Commission (BCDC) to explore sustainability technologies that will help monitor and model water management in the Bay Area. BCDC estimates that $62 billion in economic value of Bay Area Shoreline development and 270,000 people in the Bay Area are at risk from a rise in sea level.

This event discussed in more detail the latest sea level rise projections; addressed the on-going challenges and risks; and highlighted local initiatives and actions in Santa Clara County. Members of the public heard from keynote speaker Gary Griggs, Distinguished Professor of Earth Sciences at University of California, Santa Cruz; Cristina Milesi, Earth senior research scientist at Ames; federal, state and local experts; and elected officials including U.S. Congresswoman Anna Eshoo (photo left), California Assemblyman Rich Gordon and San Mateo County Supervisor Dave Pine (photo below).

NASA photos by Dominic Hart

NASA Deputy Administrator Dava Newman visits Ames

NASA Deputy Administrator Dr. Dava Newman hosted a Town Hall at Ames, July 16 to discuss NASA updates.

Newman and U.S. Department of Agriculture (USDA) Deputy Secretary Krysta Harden also signed an interagency agreement the same day. The signing event formalizes collaboration between NASA and the USDA and establishes a framework for enhanced cooperation in the areas of Earth science research, technology, agricultural management, and the application of science data, models and technology in agricultural decision-making.

The agencies also seek to better collaborate on education and communication activities that inspire youth in America to pursue careers in science, technology, engineering and math.

Following the signing, Newman and Harden were given a demonstration highlighting NASA and USDA research data at Ames' hyperwall. The hyperwall is a 23-by-10 foot liquid crystal display composed of 128 screens, totaling 245 million pixels, used to display and analyze science and engineering results from NASA's high-fidelity modeling and simulation projects.

NASA photo by Dominic Hart

NASA photo by Don Richey

Dr. Dava Newman, NASA Deputy Administrator (photo right) hosted a town hall at Ames July 16. She also signed an interagency agreement with the U.S. Department of Agriculture (USDA) Deputy Secretary Krysta Harden and visited the Ames hyperwall facility (photo left) and several other Ames facilities that same day.

Eugene Tu takes the helm as new Ames center director

continued from front page

Tu has a bachelor's degree in mechanical engineering from the University of California, Berkeley and a masters and Ph.D. in Aeronautics and Astronautics from Stanford University. An Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA), he received the NASA Outstanding Leadership Medal in 2000 and the Presidential Rank Award for Meritorious Executive in 2009. Rupak Biswas will be acting director for Exploration Technology.

NASA photo by Don Richey

Above photo: Executive Council meeting May 5 during which NASA Headquarters announced Eugene Tu (top far right at table) as Ames' new center director.

NASA photo by Dominic Hart

Right photo: Eugene Tu, Ames' new center director (left) and Tom Edwards, Ames' new deputy center director during the May 20 All Hands, answering questions from the audience.

William Borucki awarded 2015 Shaw Prize in Astronomy

William J. (Bill) Borucki has been awarded the 2015 Shaw Prize in Astronomy. The announcement of this prestigious award, often referred to as the "Nobel of the East," was announced recently in Hong Kong. The prize honors Borucki for "his conceiving and leading the Kepler mission, which greatly advanced knowledge of both extrasolar planetary systems and stellar interiors." The award will be presented Sept. 24, 2015, and is accompanied by a prize of $1 million.

Borucki retired July 3, 2015, in his 53rd year as a civil servant at Ames Research Center. He started his federal service in 1962, working on the development of the heat shields for the Apollo mission in the Hypersonic Free Flight Branch at Ames.

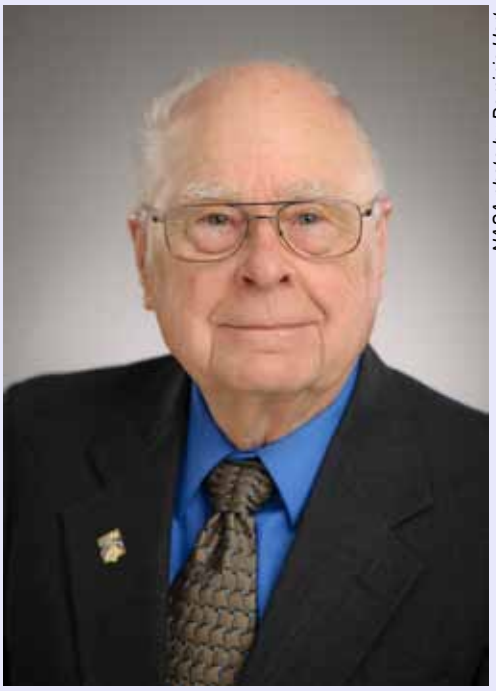
After the successful moon landings, he transferred to the Theoretical Studies Branch where he investigated lightning activity in planetary atmospheres and developed mathematical models to predict the effects of nitric oxides and chlorofluoromethanes on Earth's ozone layer. He was most recently a research scientist in the Space Sciences and Astrobiology Division at Ames, where he was the principal investigator for the Kepler mission.

Kepler has proved that planets are common in our home Milky Way galaxy. While this result has written a compelling narrative in contemporary astronomy, it obscures the fact that it took the sheer determination of Borucki and fellow team members to arrive at this milestone. In a lesson for science dreamers and future principal investigators, it took four proposals spanning a decade before Borucki and colleagues proved the efficacy of transit photometry for discovering Earth-size planets around solar-type stars. Since its launch in March 2009, Kepler has revolutionized humankind's view of our place in the universe.

The Shaw Prize is the latest in a series of prestigious awards that have been showered on Borucki and/or the Kepler team in the past few years. These awards include the 2015 National Air and Space Museum Trophy for Current Achievement, the 2014 National Space Club Robert H. Goddard Memorial Trophy, the 2013 National Academy of Sciences Henry Draper Medal (also won by eight Nobel prize winners), the 2012 American Institute of Aeronautics and Astronautics Space Science Award, the 2012 SPIE Goddard Space Science Award, the 2012 Space Frontier Foundation Vision to Reality Award, the Space Foundation's 2012 Jack Swigert Award for Space Exploration, the National Space Club's 2012 Nelson P. Jackson Aerospace Award, the Astronomical Society of the Pacific's 2012 Maria & Eric Muhlman Award, and the American Astronomical Society's 2011 Lancelot M. Berkeley Prize for Meritorious Work in Astronomy.

John Grunsfeld, associate administrator of NASA's Science Mission Directorate, said, "Bill's unique leadership, vision and research tenacity has and will continue to inspire scientists around the world. He retires on such a high note that he leaves a legacy of inquiry that will not only be celebrated, it will be remembered as opening a new chapter in the history of science and the human imagination."

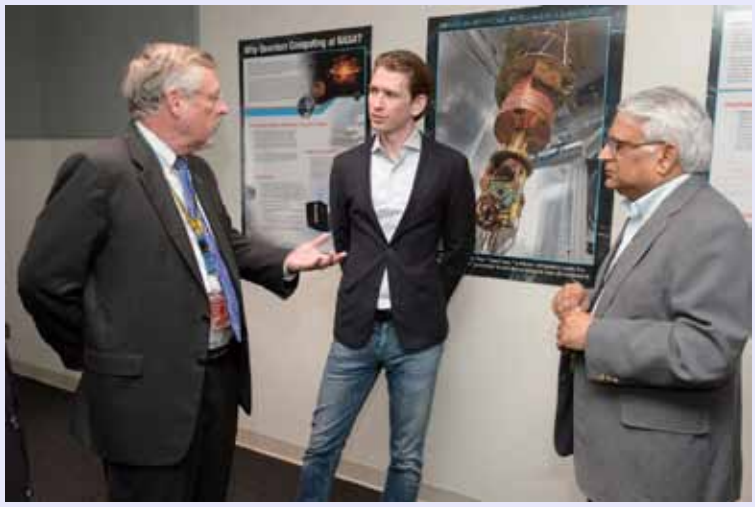
Kepler mission scientist Natalie Batalha said, "To me, Bill embodied the essence of NASA — the childlike spirit of discovery, the tireless work ethic and the playful tinkering and risk-taking that leads to bold innovation."



NASA photo by Dominic Hart

William Borucki

Foreign Minister of Austria visits



NASA photo by Dominic Hart

In April, Foreign Minister of Austria His Excellency Sebastian Kurz (center) came to Ames to visit with senior staff and to tour the facilities.Chuck Smith, acting center director at the time (left), is seen here with Kurz and Piyush Mehrotra, chief, NASA Advanced Supercomputing division (right).

Presidential Rank and NASA Honor Awards selected

Ames will present the 2015 Presidential Rank and NASA Honor Awards to 67 employees who have been selected for individual awards and to 23 groups which have been selected for the NASA Group Achievement Award.

Staff members will be invited to attend the ceremony in September to show appreciation for the outstanding accomplishments of our honorees.

The names of the honorees are as follows:

2015 PRESIDENTIAL RANK AND NASA HONOR AWARDS

Presidential Rank of Meritorious Senior Professional
Louis J. Allamandola

Presidential Rank of Meritorious Executive
Carol W. Carroll

Distinguished Service Medal
Daniel M. Bufton
Gary C. Jahns

Early Career Achievement Medal
Eric A. Giffin
Stacy L. Giffin
Nettie H. Roozeboom
Irene G. Salazar

Equal Employment Opportunity Medal
Shirley M. Burek
Ali Guarneros Luna

Exceptional Achievement Medal
Janet E. Beegle
Beverly L. Davis
Jeremy D. Frank
Shishir A. Pandya
Justin C. Pane
Robert J. Shively
Keith H. Venter
Mary P. Williams
David H. Yee

Exceptional Administrative Achievement Medal
Sarah H. Jolitz
Mary E. Perez
Pepsi Phounrath

Exceptional Engineering Achievement Medal
Cecil W. Acree
James Bell
David L. Pletcher
Stuart E. Rogers
Sean S. Swei
Chun Y. Tang

Exceptional Public Achievement Medal
Bosco J. Dias
David Mauro
David P. Encisco
Kristle I. McCracken
Dale R. Talcott

Exceptional Public Service Medal
Viatcheslav V. Osipov
Timothy A. Sandstrom

Exceptional Scientific Achievement Medal
Ruth Globus
Jennifer L. Heldmann
Tori M. Hoehler
Jack J. Lissauer

Exceptional Service Medal
Karen E. Deguzman
Yvonne Do
Mark L. Fonda
Craig E. Hange
Lynn D. Harper
Wende L. Hower
David R. Morse
Patrick S. Muldoon
Mark Newfield
Roxana L. Rodriguez
Philip B. Russell

Outstanding Leadership Medal
Deepak Bose
Maura C. Fujieh
Joseph A. Garcia
John W. Parks
Yvonne J. Pendleton
Michael M. Rogers
Kenneth M. Silverman
Sylvia A. Stanley
Sidney Sun
Colin R. Theodore
William W. Thigpen
Vivian Torres
William B. Toscano
Demosthenes Tsairides
Mary J. Werkheiser
Cecilia Wigley
Gina C. Willink

Group Achievement Award
Ames 75th Anniversary Open House Event Champions
Ames Equipment Management Team
Autonomous Mission Ops TOCA-SSC Experiment Team
Dynamic Weather Routes Team
Entry Systems Radiative Heating Team
Heliophysics Modeling and Simulation Team
Hurricane and Severe Storm Sentinel Icebreaker Team
Mode and Energy State Awareness Team
Moffett Federal Airfield Lease Negotiations Team
Mojave Volatiles Prospector Team
NAS Engineering Servers and Services Team
NAS Re-Exporter Team
NASA Robotics Alliance Project
Pleiades Stabilization and Scaling Team
Prognostics Flight Demonstration Team
Quantum Applications of Integrated Learning Team
Rodent Research-1 Project Team
Spot and Runway Departure Advisor Team
STPSat-5 Bus Acquisition Team
The North Texas Research Station Team
UAS Traffic Management (UTM) Workshop Team
Vertical Motion Simulator Mechanical Shop

New Horizon's Pluto images amazes and surprises everyone

continued from front page

This activity involves working with the imaging team to define the science observations, plan the observational sequences, and calibrate the camera system. He also served as chairman of the Jupiter Encounter Sequencing Team for the New Horizons mission, which enjoyed a very successful encounter with the giant planet and its moons in 2007.

Dale Cruikshank, an astronomer and planetary scientist who specializes in spectroscopy and radiometry of planets and small bodies, as a composition team member and co-investigator, will focus on the composition of the surfaces of Pluto and its satellite. His expertise covers Infrared spectroscopy and radiometry of planets, planetary satellites, asteroids, comets, transneptunian bodies, as well as physics and chemistry of ices and organic materials in planetary settings.

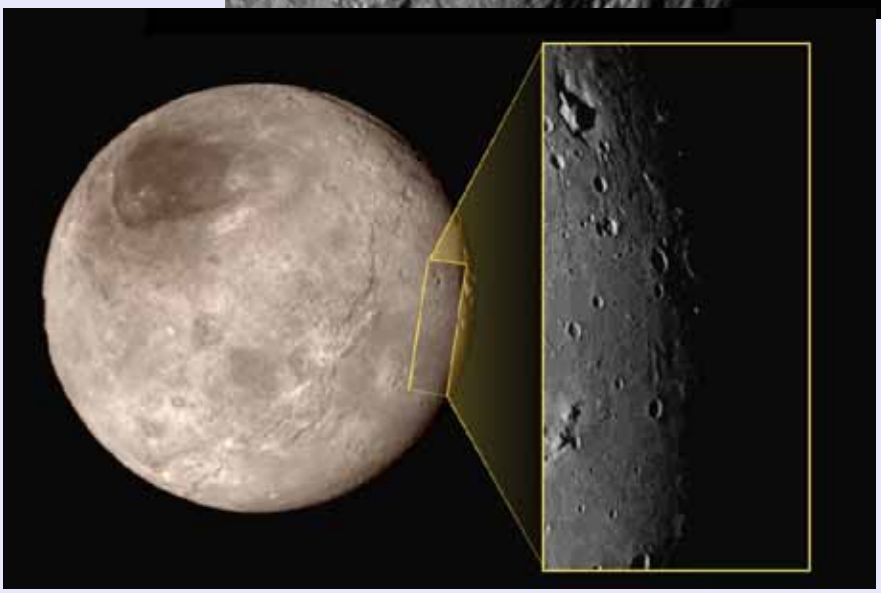
All three scientists are analyzing instrument data collected during the flyby, July 14.

For more informatoin about Ames' contributions to the mission, visit www.nasa.gov/ames/newhorizons

For more information about the New Horizons Mission to Pluto, visit: http://pluto.jhuapl.edu/Mission/index.php

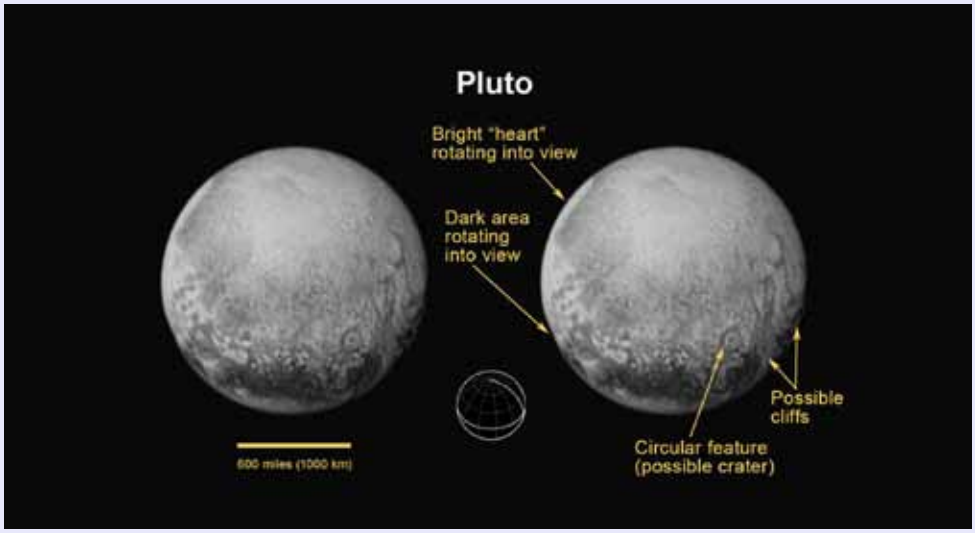
NASA photo by NASA/JHU APL/SwRI

New close-up images of a region near Pluto's equator reveal a giant surprise -- a range of youthful mountains rising as high as 11,000 feet (3,500 meters) above the surface of the icy body.



This new image of an area on Pluto's largest moon Charon has a captivating feature—a depression with a peak in the middle, shown here in the upper left corner of the inset. The image shows an area approximately 240 miles (390 kilometers) from top to bottom, including few visible craters. "The most intriguing feature is a large mountain sitting in a moat," said Jeff Moore of NASA Ames who leads New Horizons' Geology, Geophysics and Imaging team. "This is a feature that has geologists stunned and stumped."

NASA photo by NASA-JHUAPL-SwRI



For the first time on Pluto, this view reveals linear features that may be cliffs, as well as a circular feature that could be an impact crater. Rotating into view is the bright heart-shaped feature that was seen in more detail during New Horizons' closest approach on July 14. The annotated version includes a diagram indicating Pluto's north pole, equator and central meridian.

NASA photo by NASA/JHUAPL/SWRI

continued on next page

. . . and Ames Pluto Flyby event draws excited visitors

continued from previous page

Ames employees and public were invited to the New Horizon's spacecraft flyby event July 14, which featured presentations by experts on exploration and the New Horizons mission, informational booths staffed by researchers and scientists, hands-on activities and a NASA TV broadcast from New Horizons mission control. Michael Bicay, director of Science and emcee of the event (photo below) answers questions from visitors during the event. Photo left shows audience members clapping at the moment of flyby confirmation. Ames scientist Dale Cruickshank joined the event remotely to speak from mission control.

NASA photos by Dominic Hart

Dignataries and special visitors at NASA Ames . . .

Brazilian President Dilma Rousseff discusses collaborations with NASA

On July 1, Her Excellency Dilma Rousseff, President of the Federative Republic of Brazil, 42 members of her delegation, including several high-ranking cabinet members, as well as 35 representatives of the Brazilian and other media, visited Ames.

The two-hour visit included discussion about possible future collaborations to enhance the current NASA-Brazil partnership and a tour of the NASA Advanced Supercomputer Facility where examples of Ames' work in science, exploration and aeronautics were shown to her.

The day before coming to Ames, agreements were signed at Headquarters between NASA and the Brazilian Space Agency (AEB) to conduct collaborative research in heliophysics and space weather and to enhance global climate student outreach and other educational opportunities.

NASA and AEB will partner to increase opportunities for Brazilian undergraduate and graduate students to participate in internships at NASA centers through the NASA International Internship Program, which was developed and is managed by Ames.

NASA photo by Dominic Hart

Ames Center Director Eugene Tu (left) with of Her Excellency Dilma Rousseff, President of the Federative Republic of Brazil (right), during her visit to Ames in July.

NASA photo by Don Richey

Current aero research and technology discussed

Dr. Rubén Del Rosario, manager of the Advanced Air Transport Technology (AATT) Project in the Advanced Air Vehicles Program in NASA's Aeronautics Research Mission Directorate at Glenn Research Center, presented a seminar about the NASA AATT Project, at Ames May 21. The presentation described the current research and technology portfolio of the NASA AATT Project that addresses the project's objectives of delivering revolutionary improvements in energy efficiency combined with dramatic reductions in harmful emissions and perceived noise of future commercial transport aircraft.

Small Business Programs AA attends SBIP meeting at Ames

In May, NASA AA for Small Business Programs Glenn Delgado attended a Small Business Improvement Plan Meeting at Ames.

NASA photo by Dominic Hart

Secretary of State for Foreign Trade Belgium visits with Ames officials

His Excellency Pieter De Crem, Secretary of State for Foreign Trade, the Kingdom of Belgium visited NASA Ames May 7, meeting with senior officials to gain perspective about Ames' research and facilities.

NASA photo by Don Richey

Gibson presents NASA Postdoctoral Program overview

NASA photo by Dominic Hart

Dr. Robert Gibson, NASA Postdoctoral Program Director from Oak Ridge Associated Universities (ORAU), which administers the NASA Postdoctoral Program (NPP) for NASA, held a Town Hall meeting at Ames, June 9. He presented a program overview and status, discussed key NPP policies, addressed recruitment and research opportunities and fielded questions.

Earle presents "Exploring the Deep Frontier" seminar

NASA photo by Don Richey

During the "Exploring the Deep Frontier," seminar held May 5, Dr. Sylvia Earle (right) paralleled sea and space exploration drawing on a lifetime of exploring the ocean using both human occupied and remotely operated systems. Her daughter, Liz Taylor (left) described her current work with robotics at the Deep Ocean Exploration and Research Inc. (DOER) using submersibles for ocean exploration and how it can apply to space missions. Abstract: Relevant to NASA Ames robotics technologies and human factors research, this intersection of technologies may be leveraged to enable further exploration to uncharted territories. Vast frontiers beckon to be explored. As with the cosmos, the ocean is a place where humans have barely scratched the surface and have so much yet to be discovered.

Thought-provoking Ames Summer Series seminars held

Each year, the Office of the Chief Scientist produces a platform for innovative discussion to inspire, catalyze scientific progress, share ideas and communicate new and exciting concepts. This is done through the 2015 NASA Ames Summer Series seminars. This year, the series consisted of 18 seminars scheduled from June through August, from a collection of subject leaders both from and external to NASA spanning across multiple subject areas including science and technology, religion, science fiction, history, and exploration. These next two pages are a sampling of five of the seminars already held.

"Brain Function through the Eyes of the Beholder" . . .

The Summer Series seminar, "Brain Function through the Eyes of the Beholder" was presented by Dr. Lee Stone June 9. Abstract: Our eyes are critical sensors that provide endless data that our brains use to create reality. They also drive our need for exploration; our desire to visit the cosmos is born of our view of the night sky. The Visuomotor Control Laboratory (VCL) at NASA Ames conducts neuroscience research to understand the link between eye movements and brain function to provide an efficient and quantitative means to monitor human perceptual performance. The VCL in the Human Systems Integration Division aims to make dramatic improvements in mission success through analysis, experimentation, and modeling of human performance and human-automation interaction to advance human-centered design and operations of complex aerospace systems. Stone elaborated how this research is conducted and how it contributes to NASA's mission and human spaceflight.

NASA photo by Dominic Hart

NASA photo by Don Richey

"It's a Fluid World" . . .

In June, Christina Ngo presented a seminar, "It's a Fluid World." Abstract: The Fluid Mechanics Lab at NASA Ames uses various visualization techniques to optimize the design of aircraft and allow for more efficient, cost-effective vehicles. NASA Ames has a strong history in aeronautics, hosting the largest wind tunnel in the world and other state-of-the-art aeronautics facilities that support fundamental research in fluid dynamics. Ngo described the groundbreaking research conducted by NASA Ames' Experimental Aero-Physics Branch and also detailed how researchers study aerodynamic performance.

"A Cosmic End: from the Earth to the Universe" . . .

"A Cosmic End: from the Earth to the Universe" seminar was presented by Fr. Dr. José Funes, in June at Ames. Abstract: Throughout history, humans have used religion and science to explain the world, the universe and the origin of life. At times, these may have been seen as two different camps, polarizing the methodology by which to study where we came from and where we are going. Our future lies in our ability to understand Earth and the universe beyond. Will all life end with Earth, or is life a common phenomenon in the universe? Funes provided an insight on cosmology from the Vatican. He is a Jesuit priest and director of the Vatican Observatory and a member of the Pontifical Academy of Sciences.

NASA photo by Don Richey

continued on next page

Thought-provoking Ames Summer Series seminars held

continued from previous page

"The NACA: A Hundred Year Legacy" panel discussion held . . .

"The NACA: A Hundred Year Legacy" was presented July 9 as part of the Ames Summer Series. Understanding the past provides insight into our identity and NASA's history lies within NACA, the National Advisory Committee for Aeronautics.

This panel of the NACA legends all joined the NACA in their youth. Jack Boyd, senior advisor to the center director, described how the NACA style of research organization was unique and what it accomplished. Walter Vincenti, who joined Ames in June 1940 and retired as a professor in the Stanford University Department of Aeronautics and Astronautics and Vic Peterson, who joined Ames in 1956 and retired as deputy center director, addressed three topics: How to describe the NACA research-culture historically, the transition to NASA and how the NACA legacy is fundamental to NASA today.

The NACA was established on March 3, 1915, in order to promote aeronautical research and was the source behind our air superiority during World War II.The NACA's culture of conducting cutting edge research became the spirit of NASA and laid the foundation for America's leap into space. The panel delved into the legacy of the NACA. The NACA is the DNA of NASA. One hundred years ago, on the eve of World War I, Congress established the National Advisory Committee for Aeronautics (NACA) "to supervise and direct the scientific study of the problems of flight, with a view to their practical solution."

Over the ensuing four decades, the NACA research drove the growth of American aviation and laid the foundations for America's leap into space. In 1958, the three NACA laboratories-- Ames, Lewis and Langley-- formed the nucleus of NASA and the NACA heritage within NASA remains strong, especially in aeronautics. The NACA early support of commercial aviation may serve as an analogy for how the government can support commercial space moving forward.

NASA photo by Don Richey

On July 9, a Directors Colloquium, "The NACA: A Hundred Year Legacy" was presented by the distinguished panel of (left to right) Vic Peterson, Jack Boyd and Walter Vincenti and Si Ostrach of Langley on video, not pictured.

"Flying through the Ages: Rodent Research for Human Health" . . .

The Summer Series Seminar, "Flying through the Ages: Rodent Research for Human Health" was presented by Dr. Ruth Globus, in June at the center. Space biologist Dr. Ruth Globus' presentation depicted the world of rodent research in space and explained how it can support human health. Abstract: In our quest to bring humanity to the stars, we learn about ourselves, fundamental biology and how to extend our lives. Rodents are a model organism to study the short and long term effects of space travel. NASA Ames has a long history of conducting and developing the tools needed to implement space biology investigations. Building on its space shuttle experience, NASA Ames has developed the Rodent Research Habitat for the International Space Station, allowing for more frequent and longer duration space-based investigations.

NASA photo by Don Richey

Ames participates in San Francisco's LGBT Pride Parade

NASA AMES
LGBT Advisory Group

More than 145 employees, friends and family marched again in San Francisco's LGBT Pride Parade, June 28, 2015, in this NASA's second official pride parade. A full gallery and video from the event can be viewed at the official advisory group webpage: www.nasa.gov/ames/lgbt Photographers: Dan Pruyn, Brandon Gigous, Rohini Puri-Bose and Ved Chirayath.

Marley discusses Hubble's greatest exoplanet mysteries

Employees invited to celebrate Hubble's 25th anniversary

NASA photo by Dominic Hart

The Hubble 25th Anniversary Director's Colloquium, "Hubble's Greatest Exoplanet Mysteries" was presented by Mark Marley, April 22 at Ames (left photo). When the Hubble Space Telescope launched 25 years ago, the world was unaware what a profound impact it would have on our understanding of the universe. Named after Edwin Hubble, who discovered the universe was expanding, this instrument became humanity's observatory in orbit and vastly redefined our perspective of our place in the cosmos.

Famous for its mesmerizing pictures, Hubble gave humanity the clearest picture of the cosmos, inspiring scientists and the public alike. These images became a part of our society, outlining the beauty of the universe.

Hubble's data feeds many different areas of research including topics where NASA Ames' demonstrates expertise. Marley discussed Ames' contributions to exoplanet research with Hubble data.

photo by Astrid Albaugh

To celebrate Hubble's 25th anniversary, the Ames Exchange provided a cake at the Mega Bites and Barcelona Cafés April 22 (photo above).This was followed by Mark Marley Director's Colloquium at 2 p.m. and concluded that day with a Happy Hour at Mega Bites at 4 p.m.

Ombuds Office services available to Ames personnel

The Ames Ombuds Office provides all civil servants, contractors and students at the center with a supplemental, confidential and informal channel of communication to raise significant issues and concerns that they perceive could impact safety, organizational performance or mission success.

John (Jack) Boyd, Ames Omsbud

The Ombuds is accountable for conducting informal inquiries, raising issues of concern to appropriate officials and redirecting matters not under the Ombuds' realm to the appropriate office or organization with an existing administrative system; for example, the Inspector General, the Office of Equal Opportunity and Diversity, Ames Federal Employees Union, Procurement Ombuds, Chief Counsel and Human Resources.

The Ombuds' power rests on their reputation for confidentiality, fairness, objectivity, tact and respectful concern for the welfare of all individuals of the NASA community and for the well-being of the agency.

John (Jack) Boyd continues to serve as Ames Ombuds. Jim Arnold serves as the alternate Ames Ombuds. They can meet you at a location of your choice. You also can work with an Ombuds at another center.

The Ombuds office is located in Building 200, room 205, Mail Stop 200-1A. Boyd can be reached at ext. 4-5222 or at email: john.w.boyd@nasa.gov, and Arnold can be reached at ext. 4-5265 or james.o.arnold@nasa.gov.

Jim Arnold, alternate Ames Omsbud

The Ombuds website is http://insideames.arc.nasa.gov/life-ombudsoffice.php

Celebrating Asian American Pacific Islander month

Special guests, music and dance sponsored by AAPIAG ...

NASA photos by Dominic Hart

"The American Dream in First Person: From the Killing Fields to the White House" was presented by Ambassador Sichan Siv (left photo) May 14 at Ames in celebration of Asian American Pacific Islander Heritage Month. This event was co-hosted by the Office of the Center Director, the Asian American Pacific Islander Group (AAPIAG), the Office of Diversity and Equal Opportunity (ODEO) and the Office of the Chief Scientist (OCS). Captured and forced to perform slave labor by Khmer Rouge officials, Sichan Siv feared that he would be worked to death or killed. It was only a matter of time. But he never abandoned hope or his improbable dream of freedom – a dream that liberated him, astonishingly, from his brutal captors and ultimately led him to the United States, where he later became a senior White House aide and ambassador to the United Nations. Mealyann Nita Saing (right photo) performed a Cambodian Blessing Dance during the event.

Pacific Islander hula and ukelele music ...

NASA photos by Don Richey

To celebrate Asian American Pacific Islander Heritage month, employees were invited May 21 to Mega Bites Café patio to watch a live ukulele and Pacific Islander dance performance. Employees enjoyed music during lunch and met AAPI Advisory Group members. For additional information about Asian American Pacific Islander Heritage Month, please see President Obama's Proclamation at: https://www.whitehouse.gov/the-press-office/2015/04/30/presidential-proclamation-asian-american-and-pacific-islander-heritage-m

Svec shares insights on NASA/Navy relationship

The Director's Colloquium, "Sailing the NASA Skies: Military Programs at NASA Ames" was presented by US Navy Lieutenant Commander Dr. Leedjia Svec, April 29, at Ames. Named after US Navy Admiral William A. Moffett, Moffett Field has a rich military background. Moffett brought aviation to the United States Navy beginning the paradigm that combines aeronautics and maritime operations. Both domains can benefit from working together to understand how to operate in challenging environments. NASA and the Navy have a long history of collaborating on areas that are synergistic in nature, including psychophysiological research that can apply to both entities. Svec shared insights about the ongoing relationship between NASA and the Navy at Moffett Field.

NASA photo by Dominic Hart

13th Annual Hispanic Heritage Golf Tournament held

In honor of Cinco de Mayo, Ames' Hispanic Advisory Committee for Employees (HACE) held its 13th Annual Hispanic Heritage Golf Tournament May 1 at the Moffett Field Golf Course. Players of all skill levels were welcomed and invited to participate in this year's sports theme to represent their favorite sport by wearing their team's attire.

NASA photos by Dominic Hart

AAAG Golf Tournament and Juneteenth Celebration held

NASA photos by Don Richey

The Seventh Annual Braxton Golf Tournament and Juneteenth Celebration at The Moffett Golf Course was held June 19, sponsored by the African American Advisory Group (AAAG). The tournament was enjoyed by all and included great tasting food, prizes and good company.

Employees enjoy Ames Family Day event at the center

Employees were invited to bring their families to the Ames family day event, April 30. The event was hosted by the NASA Exchange in the NACA Park.

NASA photo by Don Richey

NASA photo by Don Richey

NASA photo by Jon-Pierre Wiens

NASA photo by Jon-Pierre Wiens

NASA photo by Jon-Pierre Wiens

NASA photo by Don Richey

NASA photo by Jon-Pierre Wiens

NASA photo by Jon-Pierre Wiens

NASA photo by Jon-Pierre Wiens

NASA photo by Jon-Pierre Wiens

. . .and Ames' annual free barbeque picnic

Ames employees were treated to the Ames Exchange's annual free barbeque picnic May 20 in the NACA Park. The BBQ was held just prior to new Center Director Eurgene Tu's All Hands that same day. Hamburgers, hot dogs and garden burgers were served along with cupcakes.

NASA photo by Dominic Hart

NASA photo by Dominic Hart

NASA photo by Jon-Pierre Weins

NASA photo by Don Richey

NASA photo by Jon-Pierre Weins

NASA photo by Jon-Pierre Weins

NASA photo by Jon-Pierre Weins

NASA photos by Jon-Pierre Weins

NASA photos by Jon-Pierre Weins

Fun run, Zumba classes and fitness challenges inspire employees

This year's Ames Employee Health and Fitness Day was June 4, an Ames tradition for more than 20 years.The course covered a two-mile stretch leading out to the perimeter and back. Outdoor Zumba classes started around noon, a Latin-inspired, cardio-dance workout that uses music and choreography to create a fitness-party atmosphere. The instructor provided both visual and verbal cues to lead the class in easy-to-learn, dance and fitness moves. And finally, a Fitness Challenge started around noon and included a combination of power, cardiovascular and strength endurance activities.

NASA photos by Dominic Hart

Bay Area's 21st Bike to Work Day - simple and fun

NASA photos by Dominic Hart

On May 14, Ames celebrated the Bay Area's 21st Bike to Work Day, an annual event to promote bicycling as a healthy, fun and viable form of transportation. Ames volunteers had an energizer station along Arnold Avenue, next to the NASA Ames sign, just outside the Arnold Avenue gate for employes to stop by to refuel on food and beverages. There are so many great reasons to give bike commuting a first try, but the reason people stick with it is simple – it's fun! For more information about biking to work and Bike to Work Day, see http://www.youcanbikethere.com/ or http://bicycling.511.org/bike_work/

Ames ongoing monthly events calendar

African American Advisory Group (AAAG) Mtg., last Tuesday of each month, 12 - 1 p.m., Bldg. N-255, Rm. 101C. POC: Porsche Parker, ext. 4-0044.

Moffett Aikido Club, Monday and Wednesday evenings, 6:30 p.m., Bldg. 944. Aikido is a non-competitive, defensive martial art known as the "Way of Harmony." POC: Diane Pereda (650) 575-9070 or Robert Dean (650) 787-1007, email: mfaikido@aol.com

Ames Amateur Radio Club, third Thursday of each month, noon, N-T28 (across from N-255). POC: George Tucker, at ext. 4-2200.

Ames Bluegrass Club, every Tuesday from 11:30 a.m. to 1 p.m. in Bldg. 944. Players of all instruments and all levels are welcome, but we are particularly interested in experienced players willing to help improve the group's musical skills. POC: Bob Haberle at ext. 4-5494 or email: robert.m.haberle@nasa.gov

Ames Bocce Ball Club, Ames' newest Exchange-sponsored club is seeking members. POC: Mike Lindsay email: michael.c.lindsay@nasa.gov

Ames Bowling League, at Fourth Street Bowl in San Jose. Looking for teams of four for start of season, Sept. 4. Need regular and subsitute bowlers. Thursdays starting at 6:15 p.m. For sign up questions: Michael Hom at ext. 4-0302 or Mina Cappuccio at ext. 4-1313.

Ames Contractor Council Mtg., first Wednesday of each month, 11 a.m., Bldg. N-200, Committee Room. POC: Herb Finger at ext. 4-6598.

Ames Federal Employees Union (AFEU) Mtg., third Wednesday of each month, noon. Bldg. N-204, Rm. 101. Guests welcome. Check for schedule changes at: http://www.afeu.org. POC: Paul K. Davis, ext. 4-5916.

Ames Golf Club, Members have the opportunity to play approximately 13 tournaments per year at a variety of 18-hole golf courses in the Bay and Monterey Area. POC: Barry Sullivan: Barry.T.Sullivan@nasa.gov.

The Hispanic Advisory Committee for Excellence (HACE) Mtg., first Thursday of each month, 11:30 a.m. - 12:30 p.m., Bldg. N-255, Rm. 101C. POC: Jeanette Zamora, jeanette.zamora-ortega-1@nasa.gov.

Ames Jazz Band Club, Bldg. 944, 5:30 p.m. - 7 p.m. POC: Ralph Bach, email: ralph.e.bach@nasa.gov

Jetstream Toastmasters, Mondays, 12 p.m. - 1 p.m., Bldg. N-262, Rm.100. POC: Tim Steiger, ext. 4-0195, tim.steiger@nasa.gov. Web: http://jetstream.freetoasthost.com

Native American Advisory Committee (NAAC) Bi-Monthly Meeting, First Thursday of the month beginning March 5, 2015, 11:00 a.m. – 11:45 a.m. Building 19, Room 1096. For more information contact Anita Abrego at Anita.I.Abrego@nasa.gov, or by phone at ext. 4-2565.

Ames Nimble Knitters Club, every Monday at 11:30 a.m., Bldg. N-210, Rm. 141. POC: Diane Alexander at ext. 4-3140 or email diane.alexander-1@nasa.gov. All knitters and crocheters are welcome to attend and participate in our charity projects.

Ames Roller Hockey Club, meets daily from noon to 1 p.m. at rink on north end of the 80-foot-by-120-foot wind tunnel. Players should have experience skating and must wear protective equipment. POC: James Prunty, james.a.prunty@nasa.gov

Ames Safety Committee, third Thursday of each month, 10 a.m. - 11 a.m., Bldg. N-237, Rm. 200. POC: John Livacich, jlivacich@mail.arc.nasa.gov, ext. 4-3243.

Women's Influence Network (WIN), first Wednesday of each month, Bldg. N-232, Rm. 227, noon - 1:00 p.m., POC: Wendy Holforty, wendy.l.holforty@nasa.gov

Exchange Information

Information about products, services and opportunities provided to the employee and contractor community by the Ames Exchange Council. Visit our web site at: http://exchange.arc.nasa.gov

Beyond Galileo Gift Shop N-235 in the cafeteria, 8 a.m. - 2 p.m., ext. 4-6873

Visitor Center Gift Shop (Exploration Center), Tues-Fri, 10 a.m. - 4 p.m., Sat. - Sun, 12 - 4 p.m., ext. 4-5412
Remember to purchase your baby shower, birthday and holiday gifts at Ames' two gift shops!

Mega Bites Cafeteria N-235, 6 a.m. - 2 p.m., ext. 4-5969/Catering ext. 4-2161

Barcelona Café, Bldg. 3, 6:30 a.m. - 2 p.m., ext. 4-4948/Catering ext. 4-4948
See daily menus at: http://exchange.arc.nasa.gov/cafe/menu.html

RV lots available. Call to reserve a space at (650) 254-1808.
Civilian/Contractors, $50/mo; military $25/mo

NASA Lodge (Bldg. 19) (650) 603-7100
Where to stay when you're too tired to drive home? What about the lodge?! Two types of rooms: Bldg. 19 (43 rooms), rate: $65/night ($5 ea add'l adult); Bldg. 583 A&B (150 rooms), rate: $55/night ($5 ea. add'l adult); B547 rate $60/night (for large groups)

Ames Swim Center (N-109) (650) 603-8025
The swimming pool is now open. Hours of operation are as follows (lap swim only):
MWF 10 a.m. - 1 p.m.
MWF 3 p.m. - 6 p.m.
TTH 10 a.m. - 1 p.m.
TTH 4 p.m. - 7 p.m.
The pool is heated year round. The pool normally is available for lap swim, pool parties and special events. POC: Ryan Storms, pool manager (650) 603-8025. Memberships: single memberships: $60/yr. Family memberships: $80/yr. After purchasing a membership, there is an entrance fee: daily entrance fee - $3/day or lap pass fee - $50 for 20 uses. Platinum membership - $380/yr. (no daily fee). Special events include military training, swim team events, kayak role practice, etc. The cost for special events is $75/hr, or $50/hr for military.

Exchange basketball gym, Bldg. 2
(650) 603-9717
Hours of operation:
M-F 11 a.m. - 1:30 p.m.
M-F 4 p.m. - 7 p.m.

Chase Park reservations, call ext. 4-4948
NACA Park reservations, call ext. 4-4948

Ames emergency announcements

To hear the centerwide status recording, call (650) 604-9999 for information announcements and emergency instructions for Ames employees. You also may listen to 1700 KHz AM radio for the same information.

Ames Cat Network

The Ames Cat Network needs help finding homes for cats trapped at Moffett. They range from feral to abandoned/lost pets. They are tested, altered and inoculated. Call Iris at ext. 4-5824 if you or someone you know are interested in fostering or adopting a cat.

Ames Christian Fellowship hosts prayer gathering

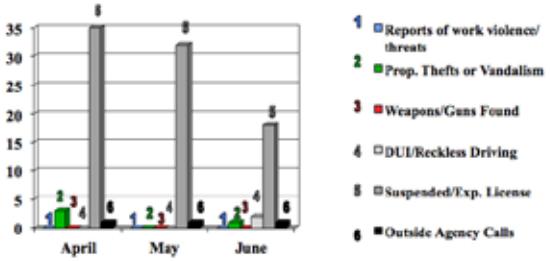
photo by Astrid Albaugh

President Obama issued a proclamation designating May 7 as the National Day of Prayer. The Ames Christian Fellowship invited center personnel for a prayer gathering at the Moffett Chapel that day and provided a complimentary lunch afterwards. Those who attended gave thanks and prayed for California, our lives, NASA, our armed forces, our nation and our loved ones. The National Day of Prayer is an annual day of observance held on the first Thursday of May, designated by the United States Congress, when people are asked "to turn to God in prayer and meditation." Each year, since then, the President has signed a proclamation, encouraging all Americans to pray on this day. The National Day of Prayer shares common roots with the celebration of Thanksgiving; both were national proclamations establishing a day of prayer, but in the New England Colonies under British rule, traditional observances in late fall called for prayer and thanksgiving, while observances in the spring or summer called for prayer and fasting. The fall observance was established by President Abraham Lincoln as the official Thanksgiving holiday in 1863. The spring observance was established by President Harry S. Truman in 1952 as the National Day of Prayer.

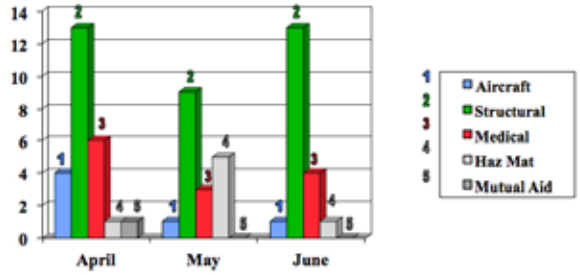
Protective Services monthly activity

A statistical summary of activities of the Protective Service Division's Security/Law Enforcement and Fire Protection Services units for the three-month period ending June 2015 is shown below.

Protective Services Office – Activities
Security/Law Enforcement Monthly Activity Report



Protective Services Office – Activities
Fire Protection Services



ASTROGRAM

National Aeronautics and Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

FIRST-CLASS
U.S. POSTAGE
PAID
PERMIT NO. 85
MOUNTAIN VIEW, CA

Astrogram NP-2015-07-01-ARC

ASTROGRAM

The Ames Astrogram is an official publication of Ames Research Center, National Aeronautics and Space Administration.
Managing Editor.....Dolores Beasley
Editor, Layout and Design.....Astrid Albaugh
Employees can reach the Astrogram Office via email at: astrogram@mail.arc.nasa.gov or by phone at ext. 4-3347. For downloadable pdf copies of each issue, visit the Astrogram website at: http://www.nasa.gov/ames/astrogram